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M U D P I E no. 1

Museum and University Data, Program, and Information Exchange

INTERINSTITUTIONAL PROGRAM EXCHANGE

The first major step toward development of methods for the exchange of biosytematic information among museums and universities took place on September 12, 1967. Ralph Axtell, of the Biology Department of Southern Illinois University, called the Smithsonian Institution, using the teletype connected to his time-shared computer, and asked for a program for the calculation of standard deviations. The Smithsonian then sent two programs, one for calculating S. D. using ungrouped data, and a second for use with grouped data, using prepunched tapes. Axtell cut a tape directly from the teletype, and then fed that tape into the GE 235 computer for permanent storage. This demonstrates the first of our major premises--that it is fast, practical, and feasible to exchange programs in the BASIC language, written for use by biosystematists, between institutions in the United States.

EXISTING INSTALLATIONS IN THE UNITED STATES

To our knowledge, there are now three installations in the United States with teletype connections to time-shared computers. These are:

Smithsonian Institution, Washington, D. C. Area Code 202, 393-4876

Southern Illinois University, Edwardsville, Illinois (R. Axtell)

Wellesley College, Wellesley, Massachusetts 02181 (R. Shoop)

Also, according to a recent letter, the Academy of Natural Sciences, Philadelphia, Pa., will have their connection established in October. If these and other institutions will make their telephone number and area code available to us, we will announce them in future MUDPIES, so that a wider exchange of information can be established.

PROGRAMS CURRENTLY AVAILABLE FROM SMITHSONIAN

1. STDDEV--Calculates mean, range of values, variance, standard deviation, mean ± twice standard error, mean ± one standard deviation, and the coefficient of variation, for ungrouped data.

2. SDGRPS--Calculates same values as no. 1, but for grouped data.

3. REGRES--Calculates regression values for a pair of variables, printing significant data as well as the regression equation, the slope, the Y- intercept, and other values, for ungrouped data.

4. REGRPS--Calculates same values as no. 3, but for grouped data.

5. JAPFRF--Calculates faunal resemblance factors, printing them out as a matrix, using any one of eight different coefficients of similarity.

6. PROVAL--Calculates the same set of values as no. 1, but does it on proportional values rather than on meristic data.

Anyone wishing tapes of these programs should first call J. A. Peters at Area Code 202-- 381-5460, and arrange to call on the teletype number above. Anyone who

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has written a special program and is willing to make it available to others can send information similar to that in the list above to MUDPIE, Division of Reptiles and Amphibians, United States National Museum, Washington, D. C. 20560, and we will send the word out to others.

WHY MUDPIE?

MUDPIE represents an attempt to keep everyone up to date on the development of time-shared computing in museums and universities engaged in systematic research. Several individuals receiving this first copy had written asking the same questions, and this is a quick way of answering them. There was a tremendous temptation to set it up so that it could be received only through the teletype and computer--but that proved to be a little too advanced for the present!

Washington, D. C.
September 13, 1967